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Hirsch

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(54) **DYNAMIC OBJECT VISUALIZATION AND CODE GENERATION**

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(57) **ABSTRACT**

A computer operated apparatus for generating a visual information system is disclosed. A virtual world associated with an application is built using building blocks such as scenes, data sources, global parameters, and resources. A scene is a visual display of information much like a presentation slide, except that the information may be linked to data stored in a database or other data storage systems. Within a scene, values resulting from a data source are represented graphically as user-defined data elements. Data sources are built with a block diagraming tool which generates one or more database queries. The queries may be SQL queries. Scenes are created with a drawing editor which transparently binds data sources to the graphical elements of the scenes. When the virtual world is completed, an execution image of the virtual world may be represented as byte code. The byte code representing the virtual world may be executed by a runtime control to provide desired information to users.

8 Claims, 16 Drawing Sheets